

REMARKS

This amendment is being filed in response to the Office Action having a mailing date of February 5, 2009. Various claims are amended as shown. New claim 35 has been added. No new matter has been added. Claim 32 was previously canceled without prejudice. Claims 6 and 12 are canceled herein without prejudice. With this amendment, claims 1-5, 7-11, 13-31, and 33-35 are pending in the application.

I. Rejection under 35 U.S.C. § 101

The present Office Action rejected independent claim 1 under 35 U.S.C. § 101 for allegedly failing to fall within a statutory invention category. While it is believed that this rejection is without merit, claim 1 and its dependent claims are nevertheless amended as shown to explicitly recite a “network device,” so as to more positively tie the elements of the claimed method to a “particular machine.”

In view of this amendment to claim 1, it is kindly requested that the 35 U.S.C. § 101 rejection be withdrawn.

II. Discussion of the claims and cited references

The present Office Action rejected claims 1-6, 9-15, 17-22, 24-29, and 32-34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mankude (U.S. Patent No. 6,795,866) in view of Egevang (U.S. Patent Application Publication No. 2003/0081605) and in further view of Basso (U.S. Patent No. 7,065,086). Claims 7, 16, and 30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mankude in view of Egevang and Basso, and in further view of Iny (U.S. Patent Application Publication No. 2002/0061030). Claims 8, 23, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mankude in view of Egevang and Basso, and further in view of Malagrino (U.S. Patent No. 6,714,985).

For the reasons set forth below, these rejections are respectfully traversed. It is therefore kindly requested that the Examiner reconsider and withdraw the rejections.

A. Independent claim 1

Independent claim 1 is amended herein to generally recite subject matter from its previously presented dependent claim 7, such that amended claim 1 now recites, *inter alia*, “wherein said applying includes adding to the non-head fragments, by said network device, a routing tag that includes said destination address that was determined by said processing of said head fragment” (emphasis ours). It is respectfully submitted that claim 1 is allowable over the cited references.

For example, in previously rejecting claim 7, page 9 of the present Office Action admitted that Mankude, Egevang, and Basso do not mention “a routing tag to the non-head fragments that includes said determined destination address.” To supply the missing teachings of these references pertaining to a routing tag, page 10 of the present Office Action relies upon Iny and asserts that it would have been “obvious to implement the step of tagging of a destination address to a fragment as taught by Iny to the fragment forwarding process of Mankude, modified by Egevang...”

This assertion of obviousness by the present Office Action is respectfully traversed herein.

It is well settled that if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP § 2143.01(VI) explicitly supports this position.

In the present situation, certain ones of the references determine/apply the destination address in fundamentally different ways from each other, such that the combination proposed by the present Office Action would require one or more of the cited references to change their principle of operation. Accordingly, there is no *prima facie* obviousness in this situation.

Mankude (*see e.g.*, his Figure 4 and the accompanying description on column 6, line 20 *et seq.*) teaches that he creates a packet forwarding data structure 400 that points to “holder objects” 410, 420, and 430. A separate holder object is created for each packet. The holder object(s) in turn include a field called “destination node” (412, 422, and 432) that contains

the address of the destination to which the packet is being forwarded. According to column 7, lines 13-34, Mankude links each fragment into a corresponding holder object and determines the destination address to forward the fragment based on the information contained in the destination node specified in the holder object. Accordingly, Mankude uses a “look-up” type of technique (*e.g.*, determining the destination address for a fragment by looking up the destination address from the holder object linked to the fragment), rather than by adding a routing tag (that includes the destination address) to the fragment. Thus, modifying Mankude by adding a routing tag (as alleged by the present Office Action to be taught by Iny) would result in changing the principle of operation of Mankude. Such a change of the principle operation of Mankude makes the references insufficient to render the claims *prima facie* obvious. *In re Ratti*, and MPEP § 2143.01(VI) *supra*.

Basso is similar to Mankude in that Basso also uses a type of look-up technique. More particularly, rather than using the term “holder object” of Mankude, Basso uses a “Packet Cache Control Block” (PCCB), which is a “software or hardware construct.” *See, e.g.*, column 9, lines 1-5 of Basso. The PCCB is set with a “destination identifier” that uniquely identifies a destination to which all fragments of the fragmented IP datagram must be forwarded. *See, e.g.*, column 10, lines 22-27 of Basso. In operation, the forwarding mechanism of Basso forwards a fragment to its destination as determined from and specified by the destination identifier in the PCCB. *See, e.g.*, column 16, lines 43-47 of Basso. Accordingly, Basso (like Mankude) uses a “look-up” type of technique (*e.g.*, determining the destination address for a fragment by looking up the destination address from the PCCB linked to the fragment), rather than by adding a routing tag (that includes the destination address) to the fragment. Thus, modifying Basso by adding a routing tag (as alleged by the present Office Action to be taught by Iny) would also result in changing the principle of operation of Basso. Such a change of the principle operation of Basso makes the references insufficient to render the claims *prima facie* obvious. *In re Ratti*, and MPEP § 2143.01(VI) *supra*.

With regards to Egevang, page 8 of the present Office Action cites paragraph [0048] of Egevang as teaching “overwriting (modifying)” a destination field of a fragment with the determined destination. Accordingly, it is respectfully submitted that a proposed

modification of Egevang, such that his technique of “overwriting (modifying)” the destination field is replaced by a technique of adding a routing tag (as alleged by the present Office Action to be taught by Iny), would also result in changing the principle of operation of Egevang. Such a change of the principle operation of Egevang makes the references insufficient to render the claims *prima facie* obvious. *In re Ratti*, and MPEP § 2143.01(VI) *supra*. Furthermore, it is noted that since Egevang uses a different technique for applying the destination address (overwriting/modifying), as compared to Mankude and Basso (which determine/use the destination address from a holder object or PCCB, respectively), it is also not proper to combine Egevang with Mankude or with Basso, since such a proposed combination would change the principle of operation of the reference being modified.

In view of at least the above reasons, it is respectfully submitted that claim 1 is allowable.

B. Dependent claim 7

Dependent claim 7 as amended herein recites, *inter alia*, that the routing tag specifies the destination address, which is “located at a receiver end outside of an exit point of said network device.” Support for this recitation can be found, for example, in Figure 2 and the accompanying description in the present application, which disclose the destination (at the receiver end) that is located outside of the exit point 202.

It is respectfully submitted that claim 7 is allowable over the cited references.

For example, page 9 of the present Office Action admitted that Mankude, Egevang, and Basso do not mention “a routing tag … that includes said determined destination address.” To supply the missing teachings of these references pertaining to a routing tag, page 10 of the present Office Action relies upon Iny. However, Iny does not cure the deficiencies of these references.

More particularly, paragraph [0027] of Iny clearly teaches that the destination-id 208 “indicates the destination output port of the packet” (emphasis ours). Thus, the destination address in Iny’s “routing tag” is the destination address of the output port of his packet switching device 10. Stated in another way, the destination address of Iny is located at/in his device 10. In

contrast, claim 7 requires the destination address to be located “outside of an exit point of said network device.”

In view of at least these reasons, claim 7 is thus allowable.

C. Independent claims 13, 28, 33 and their respective dependent claims 16, 30, and 35

Independent claims 13 and 28 are amended herein to recite subject matter from their respective previously presented dependent claims 16 and 30. More particularly, claims 13 and 28 are amended to recite, *inter alia* and using varying language, a “routing tag” in a manner similar to claim 1. Claim 33 also recites a routing tag. For reasons analogous to those provided above, in particular with respect to non-obviousness by virtue of the changing the principle of operation of the reference being modified, claims 13, 28, and 33 are allowable.

Dependent claims 16 and 30 are amended in a manner generally similar to dependent claim 7. New claim 35 depends on claim 33 and also recites subject matter generally similar to dependent claim 7. For reasons analogous to those provided above with respect to claim 7, claims 16, 30, and 35 are also allowable.

D. Independent claims 9, 17, and 20

Independent claim 9 is amended herein to recite subject matter from its previously presented claim 12, and more particularly recites, *inter alia*, “overwriting a destination field of these non-head fragments with said determined destination address.” Independent claims 17 and 20 are amended in a similar manner, using varying language. It is respectfully submitted that claims 9, 17, and 20 are not rendered obvious by the cited references.

More specifically, in rejecting previously presented claim 12, page 8 of the present Office Action cites paragraph [0048] of Egevang as teaching “overwriting (modifying)” a destination field of a fragment with the determined destination. As previously explained above, Egevang thus uses a different technique for applying the destination address (overwriting/modifying), as compared to Mankude and Basso (which determine/use the destination address from a holder object or PCCB, respectively). Mankude and Basso’s look-up

technique does not involve overwriting of destination fields in a fragment, and in fact makes any destination fields in a fragment irrelevant, since the destination is determined from the holder object or PCCB that is separate from (external to) the fragment. Accordingly, it is respectfully submitted that a proposed modification of Mankude or Basso, such that their respective techniques to determine/use the destination address from a holder object or PCCB, is replaced by Egevang's technique of "overwriting (modifying)" the destination field of a fragment, would also result in changing the principle of operation of Mankude and Basso. Such a change of the principle operation of Mankude and Basso makes the references insufficient to render the claims *prima facie* obvious. *In re Ratti*, and MPEP § 2143.01(VI) *supra*.

In view of at least the above-reasons, claims 9, 17, and 20 are therefore allowable.

III. Conclusion

Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 407-1574.

The Director is authorized to charge any additional fees due by way of this response, or credit any overpayment, to our Deposit Account No. 500393.

All of the claims remaining in the application are believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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